

The Story So Far

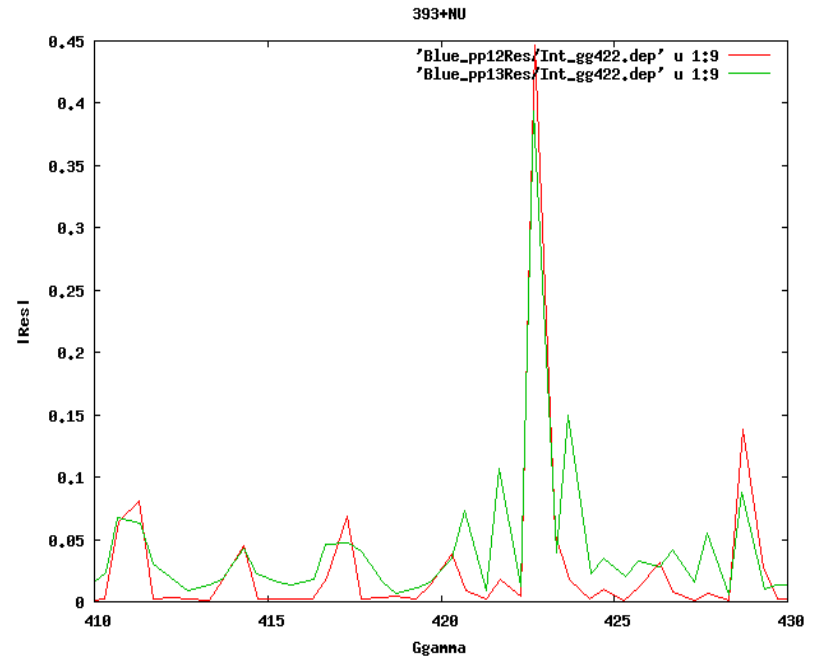
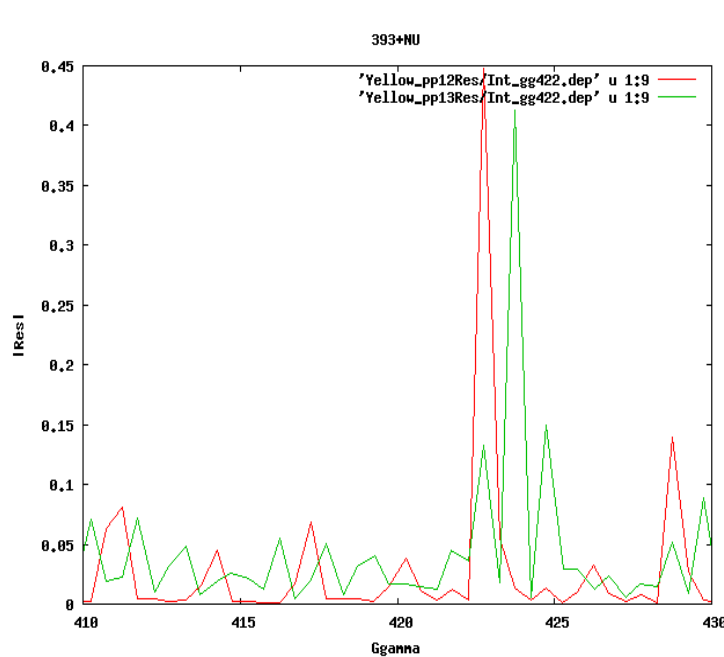
February 2013

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11 4K Wave	12	13	14	15 Cold in both rings	16
17	18 PP12 lattice test evening	19	20	21	22	23
24	25	26 First Collisions	27	28 PS work during Day	29 Overnight Stores 109x109	
PS gave us e-lens						
					Start Physics?	

Issues to Date

- Current glitches of the main dipole ramp
- STAR beam pipe aperture/position
- Issues with phase shifter PS not ramping due to faulty database
- Abort Kicker pre-fires
- Q7 magnet PS issue
- Issues decoupling feedback and feedforward from including phase shifter PS.
- ATR Dipole faulty making injection difficult
- Wfgman glitches between ramp to store ramp.
- Tuning Chroms on Ramp
- Store Lifetime tuning

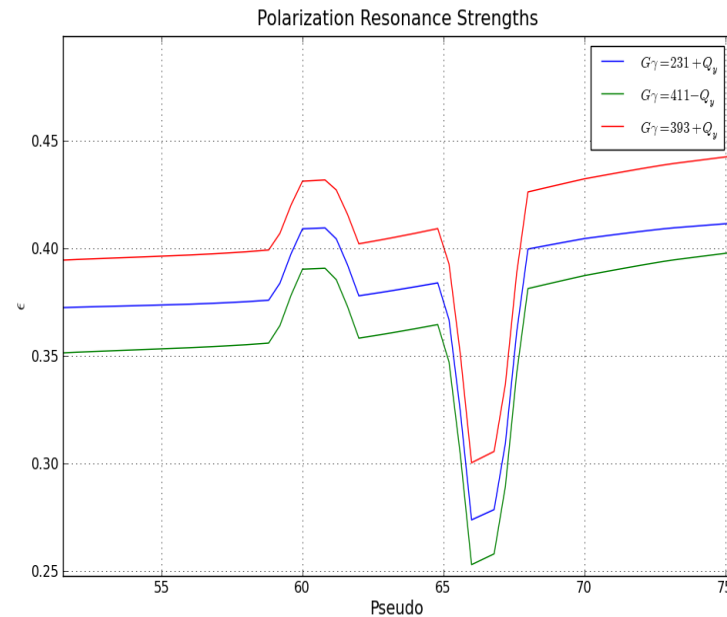
Design Resonance Structure



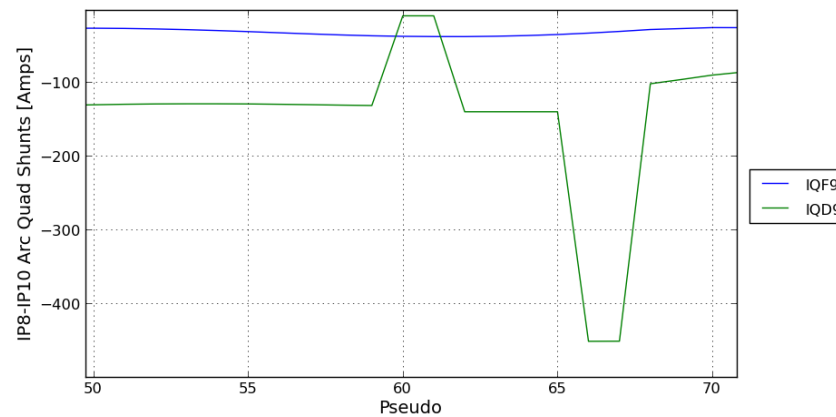
Reduced Resonances by 10 to 14%

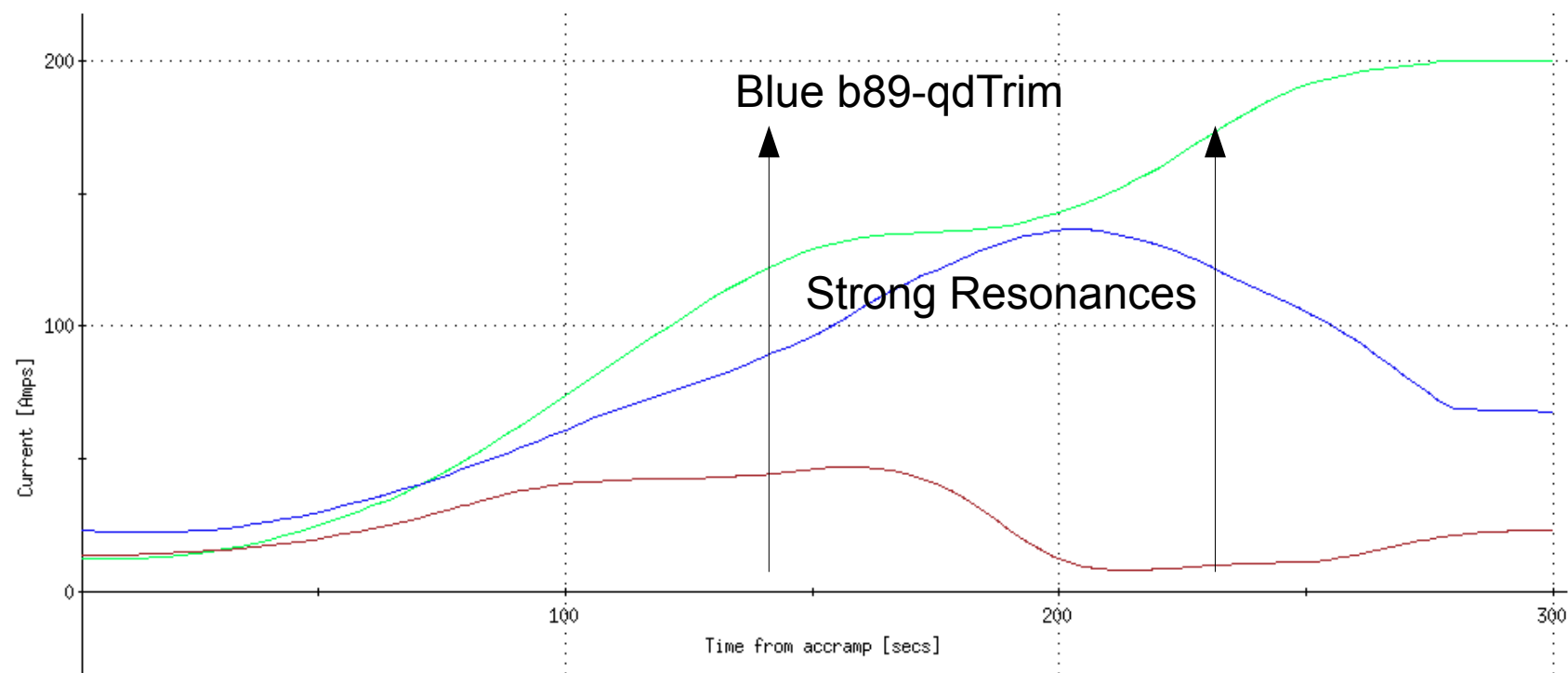
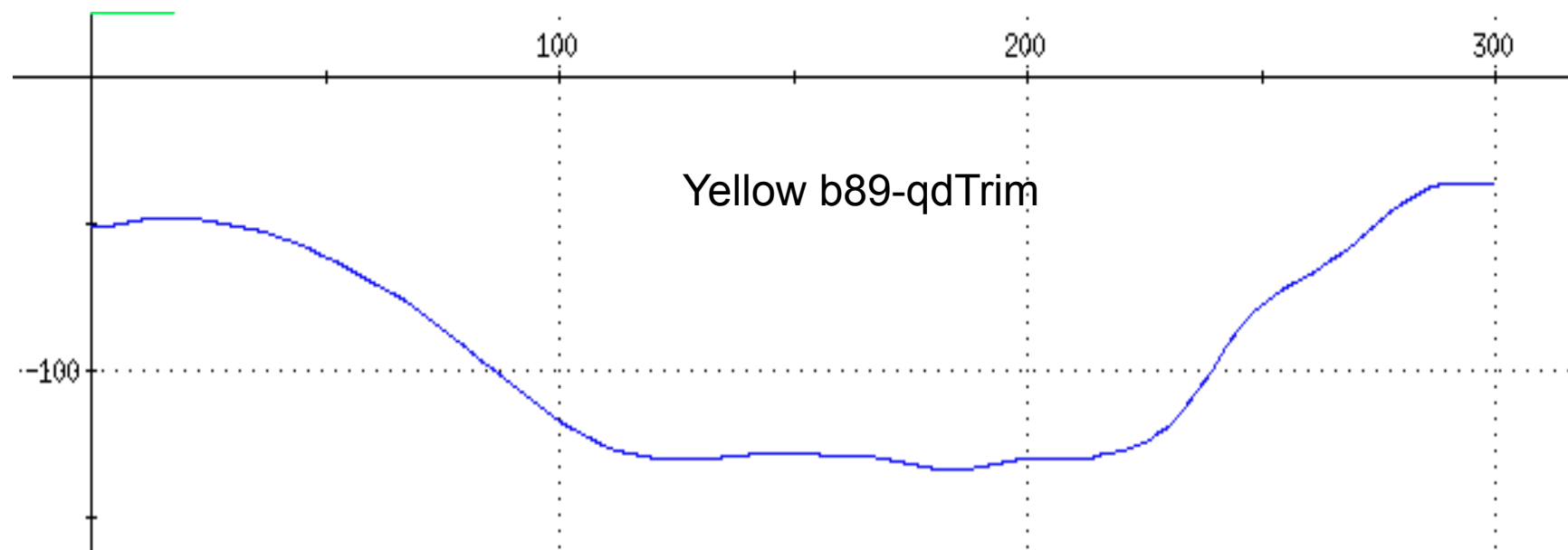
Resonances	Blue (new-old)	Yellow (new-old)
231+NU	-0.0387	-0.0415
411-NU	-0.06134	-0.0655
393+NU	-0.05347	-0.0347

Phase Shifter breaking lattice Symmetry

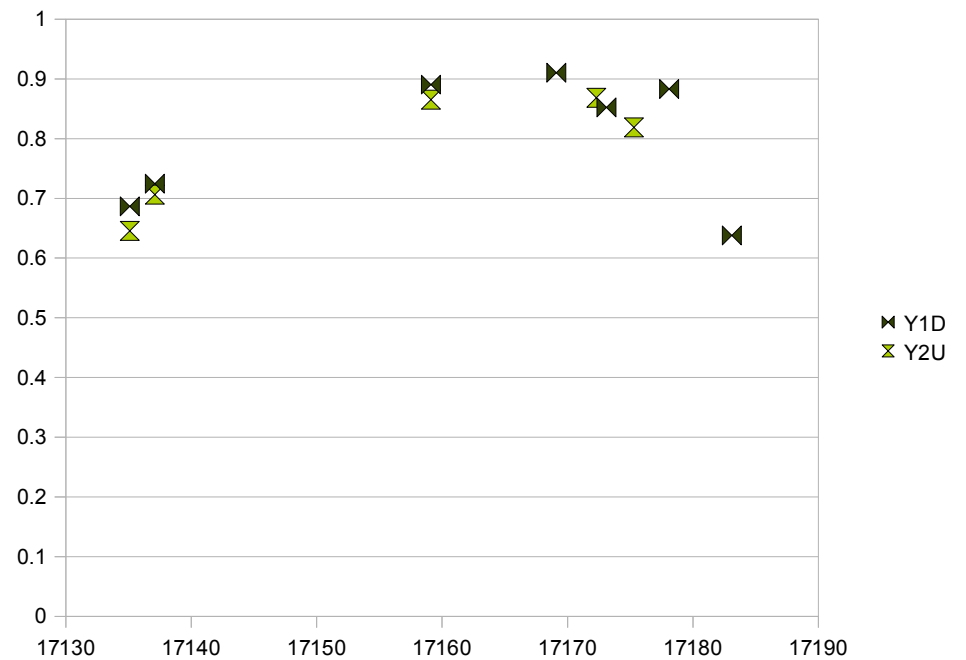
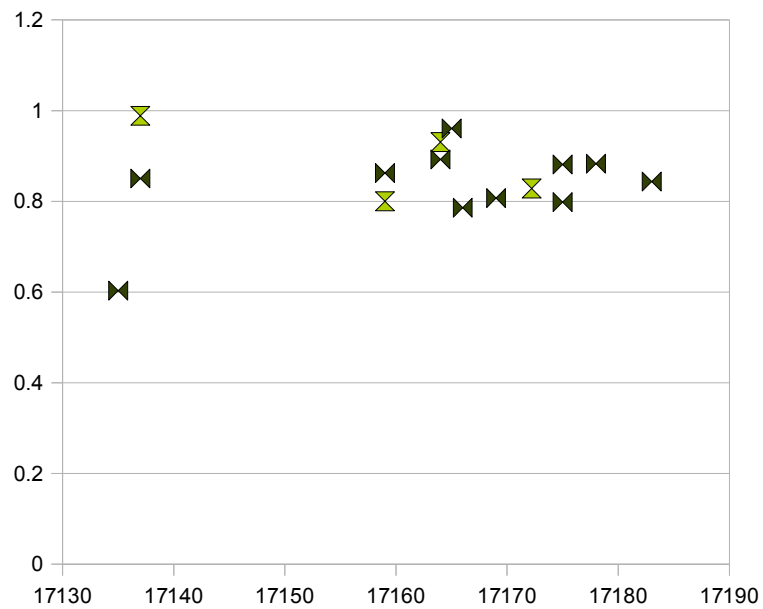


The power of IQD9:
Going from 0 to -140
To -450 Amps





Polarization Transmission Efficiency in RHIC



Understand Why Efficiencies not better?

- Design Optics not being reproduced in the machine?
 - Recent study last night maybe shed light on this
- Orbit is worse than in FY12? My calculation of the differential Imperfection Res ~ 0.03 difference may not be right since BPM's realigned
- More tune Spread than in past?
 - Last night's study also should help understand this